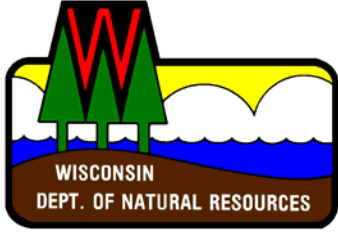


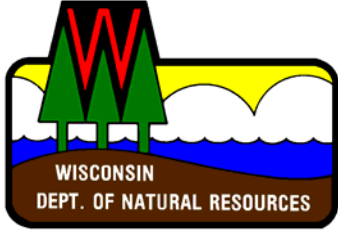
# **Overview of Clean Air Interstate Rule (CAIR) & Options for Implementation**



# Presentation Outline

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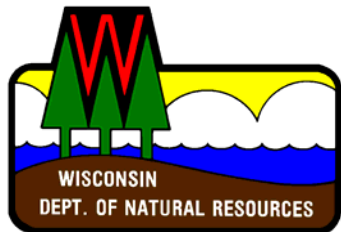
1. Overview of CAIR
2. Option One Proposal
  - SO<sub>2</sub> Market
  - NO<sub>x</sub> Markets
3. Option Two Proposal
4. Questions and Comments



# Questions for Comment

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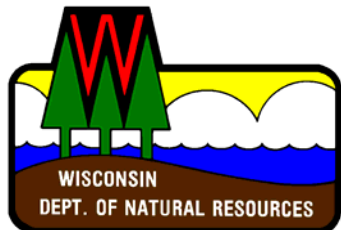
- ◆ Basis for allocations
- ◆ Baseline for determining allocations
- ◆ Set-asides
- ◆ Option Two ratios



# CAIR Overview

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- ◆ Requirement to reduce interstate transport of ozone and fine particles.
- ◆ EPA established emission budgets for each state for each pollutant of concern.
- ◆ EPA determined that reducing emissions from power plants was highly cost-effective.
- ◆ Covered units are electric generating units (EGUs) and co-generators serving a generator with nameplate capacity of 25 MW or greater.

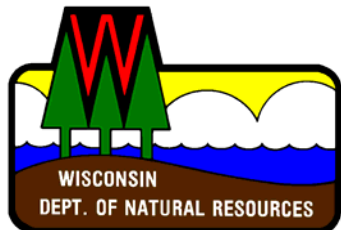


# CAIR Trading Program

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- ◆ EPA's favored approach to reach the budgets established by EPA is to implement three separate trading markets for Annual SO<sub>2</sub>, Annual NO<sub>x</sub> and Ozone-Season NO<sub>x</sub> emissions.
- ◆ EPA developed a model rule for the states to use to implement the federal trading markets.
- ◆ The Annual and Ozone-Season NO<sub>x</sub> trading markets are separate compliance requirements.
- ◆ Reductions under CAIR are implemented in two phases:

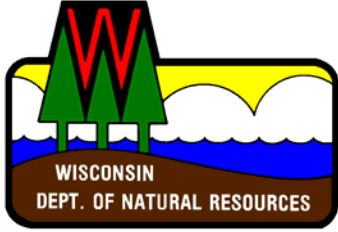
	Phase I	Phase II
NO <sub>x</sub>	2009-2014	2015+
SO <sub>2</sub>	2010-2014	2015+



# WDNR's CAIR Proposals

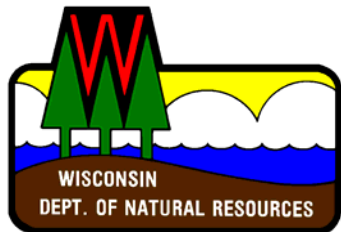
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- ◆ WDNR proposes to use the EPA model rule as a framework with some alterations to the allocation and allowance structure for the NO<sub>x</sub> markets.
- ◆ WDNR is proposing two options for the implementation of CAIR.
- ◆ Under both options, WDNR would participate in the federal trading program operated by the US EPA.



# CAIR Option One Proposal

CAIR program separate of BART and  
RACT compliance requirements



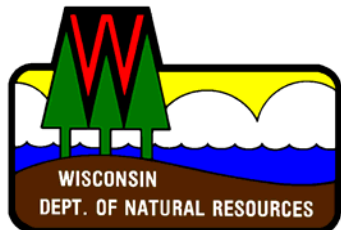
# SO<sub>2</sub> Trading – Option One

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WDNR proposes the following structure:

- ◆ SO<sub>2</sub> trading market would follow the EPA model rule.
- ◆ Under the model rule, the SO<sub>2</sub> allowances are based on Title IV Acid Rain allowances
  - ◆ Previously distributed in perpetuity.



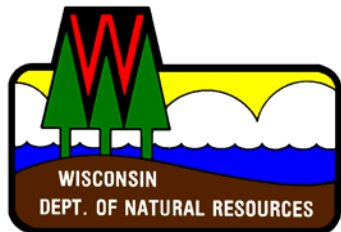


# SO<sub>2</sub> Trading Cont.

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- ◆ Emission reductions come from retirement ratios that change the value of allowances depending on the year the allowance was issued.
- ◆ Retirement Ratios

<b>Year Allowance Issued</b>	<b>Ratio</b>	<b>Value</b>
2009 & earlier (Title IV)	1:1	1 ton
CAIR Phase I (2010-2014)	2:1	0.5 of a ton
CAIR Phase II (2015+)	2.86:1	0.35 of a ton

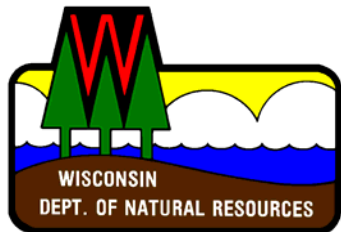


# NO<sub>x</sub> Trading – Option One

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WDNR proposes the following structure:

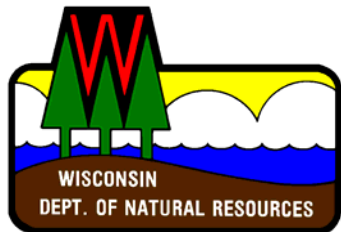
- ◆ Same structure for NO<sub>x</sub> Annual and Ozone Seasonal markets.
- ◆ Allocations to both existing and new sources would be based upon gross generation output.
- ◆ Baseline would be updated every three years.
- ◆ No fuel weighting
- ◆ Compliance Supplement Pool (Annual NO<sub>x</sub> Program) would be permanently retired.



## NO<sub>x</sub> Trading – Combined Heat and Power

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- ◆ Combined heat and power (CHP) units, also known as cogeneration, generate power and thermal energy from a single fuel source.
- ◆ CHP projects would receive allocations based upon electrical output and an equivalent value of the thermal output.



# NOx Trading – Set-Asides

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- ◆ A set-aside is a pool of allowances separate from the main allocation pool.
- ◆ The annual and seasonal markets include two separate set-asides.
  - ◆ New Sources
  - ◆ New Renewable and Energy Efficiency Projects (RE/EE)



# NO<sub>x</sub> Trading –Set-Asides

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- ◆ New Source Set-Aside

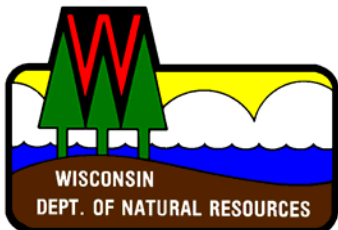
- ◆ Phase I: 5%

- ◆ Phase II: 3%

- ◆ New RE/EE Set-Aside

- ◆ Phase I: 3%

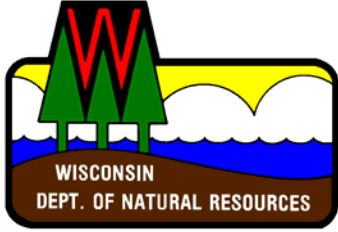
- ◆ Phase II: 5%



## Differences between EPA Model Rule and WDNR Option One Proposal

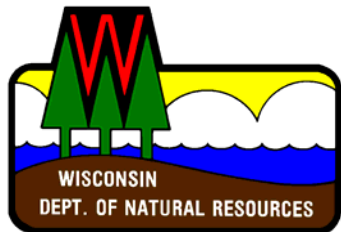
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	<b>EPA Model Rule</b>	<b>WDNR</b>
Allocation basis- existing sources	Heat input	Electrical output
Length of allocation	Five years	Three years
Fuel weighting	1.0 for Coal 0.6 for Oil 0.4 for all others	No fuel weighting
RE/EE source set-aside	No RE/EE set-aside	Phase I: 3% Phase II: 5%
Annual CSP	Hardship and/or early reductions	Permanently retired



# CAIR – Option Two Proposal

Integration of BART and RACT  
compliance requirements for EGUs into  
CAIR Trading Program

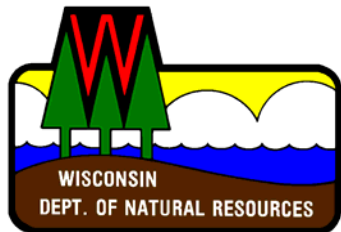


## Option Two – Integration of CAIR, BART and RACT Compliance Requirements

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- ◆ Applies only to EGUs
- ◆ Purpose: to achieve focused reductions intended by the individual requirements of BART and RACT while providing the flexibility of an open market national trading program.

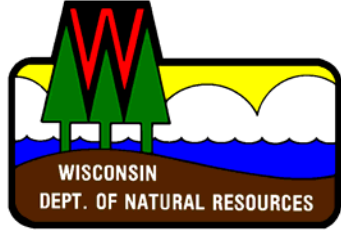




## Option Two – Continued

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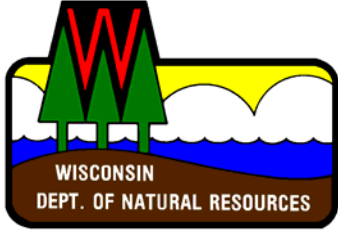
- ◆ NO<sub>x</sub> and SO<sub>2</sub> allowances would be allocated according to the CAIR program structure outlined in Option One.
- ◆ Under both NO<sub>x</sub> and SO<sub>2</sub> markets, BART and RACT units would be subject to a higher retirement ratio.



## Option Two – Continued

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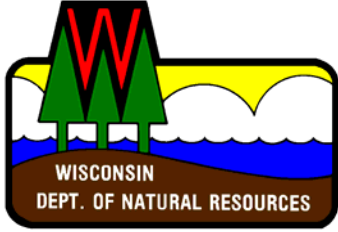
- ◆ Ratios would be based on two factors:
  1. RACT and BART level of control estimated for the units
  2. An additional reduction associated with the flexibility of a trading program



## Option Two – Continued

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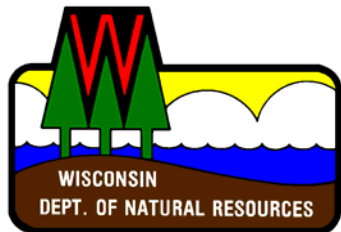
- ◆ Additional reduction may be based on a number of factors:
  - ◆ Additional 10% reduction over EPA's minimum requirements
  - ◆ Level of control expected to be installed
  - ◆ Incremental cost of compliance
  - ◆ Potential to load shift to units not affected by increased ratios
- ◆ The retirement ratio may be based on either the year the allowance was issued or the year the allowance was surrendered for compliance.



## Why Option Two?

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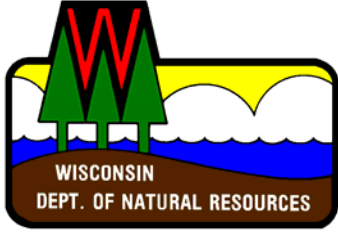
- ◆ Uses national trading market to comply with BART and RACT
- ◆ Gives flexibility to utilities to determine least cost control strategy
- ◆ Achieves focused reductions of BART and RACT requirements



We would like specific feedback on the following issues.

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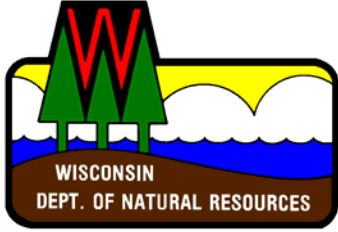
- ◆ Baseline in Option One and Two
  - ◆ Frequency of updating
  - ◆ Years of data to use
- ◆ Allocations in Option One and Two
  - ◆ Unit, plant or generator level?
  - ◆ Heat input or generation output (net or gross)?
  - ◆ Fuel weighting?



We would like specific feedback on the following issues.

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- ◆ Set-asides in Option One and Two
  - ◆ Size
  - ◆ Undersubscription and oversubscription
  - ◆ Aggregation of smaller sources?
- ◆ Option two
  - ◆ Retirement ratio applied on a unit-by-unit or system-wide basis
  - ◆ Ratio applied to year allowance is issued or year used?
  - ◆ Factors used to determine size of ratios



# Questions?

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For more information on CAIR, contact  
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